

NOTES ON THE BUPRESTIDAE OF OREGON WITH DESCRIPTIONS OF NEW SPECIES.

By W. J. CHAMBERLIN,

FOREST ENTOMOLOGIST, OREGON STATE COLLEGE.

The Buprestidæ are usually considered as tropical insects, yet some 380 species are known from the United States and sixty-three of these have been taken in Oregon. Of the sixty-three species listed, fifty-six are represented by Oregon specimens in the author's collection. Two of the remaining species have been seen bearing Oregon labels and the other five are included on the best of authority such as that of Leconte, Horn and Fall.

Sixteen of the species listed below have not been reported heretofore from Oregon and two new species are herewith described.

The Oregon species belong in twelve different genera, as follows:

I. *Chalcophora* Sol.

1. *C. angulicollis* Lec. A common species throughout the state.

II. *Dicerca* Esch.

2. *D. prolongata* Lec. Quite common on *Populus tremuloides*; occasionally found on willow.
3. *D. pectorosa* Lec. This species is becoming a serious pest in orchards working in the lower trunks and roots of prune trees. Its native hosts are *Prunus subcordata* and *P. demissa*.
4. *D. tenebrosa* Kirby. Quite common breeds in *Pinus* and *Abies*.
5. *D. sexualis* Crotch. Not common, occurs early on Douglas Fir.
6. *D. horni* Crotch. Rare, found in oak regions of southern Oregon.
7. *D. lurida*. Fab. A single specimen of this typical eastern species was taken at Corvallis on June 30th. It has probably been introduced and may become established here as Dr. Burke reports *D. obscura* as breeding in ash in California. This species not previously reported from Oregon.

III. *Trachykele* Mars.

8. *T. opulenta* Fall. Only two specimens of this rare beetle have been taken here to my knowledge, one flying at Corvallis, May 4; another chopped from its pupal cell in *Libocedrus decurrens* at Detroit on Sept. 6. It also attacks *Thuja plicata* and *Sequoia gigantea*.
9. *T. blondeli* Mars. The work of the larvæ of this beetle is very common in cedar from the coast up to 2000 feet and a quantity of the larvæ may be chopped out at any season of the year. The adults are seldom seen. Most of the specimens in collections have been taken from their pupal cells, usually dead. Many individuals become mature but for some reason fail to cut their way out of the tree. Fully mature, apparently normal adults were found June 26 in their cells in cedar at Oakridge, Oregon, having made no effort to cut through the one-eighth of an inch of bark covering the large pupal cell. Much loss is occasioned by the larval mines in cedars, some operators estimating their loss to shingle material at from 15 to 30 percent of the cut, over limited areas. The reported hosts for this species are *Thuja plicata*, *Juniperus occidentalis*, *Cupressus macrocarpa*, *C. sargentii* and *C. macnabiana*.
10. *T. nimbosea* Fall. This dark bronze species is even more rare than the green forms. The hosts are the true firs of the genus *Abies*. The Oregon records are Yamhill VII-14; Corvallis V-28; Ashland IX-1 and Forest Grove VIII-7.

IV. *Pœcilonota* Esch.

11. *P. cyanipes* var. *californica* Chamb. This species is very common in certain localities on *Populus tremuloides*.
12. *P. montanus* Chamb. This species was apparently known only by the type material from Montana until recently. In June of the present year five females were taken near Oakridge, Oregon, ovipositing in the bark of injured *Populus trichocarpa*.

V. Buprestis Linn.

13. *B. aurulenta* Linn. Our most abundant species, appearing as early as March. Breds in Douglas fir, various pines, firs and spruces. Several unusual records of the longevity of the larvæ of this species have come to our notice. Typical of these is a recent letter, reproduced below:

Portland, Oregon,
4/23/24.

To whom it may concern:—

This bug was found last evening whilst working out of the hand railing of our stairs. The railing has been varnished and kept so for nine years to my knowledge and has shown no previous borings for the deposit of the egg. It came out at the top surface from a depth of about $\frac{5}{8}$ in. I do not know that the bug is out of the ordinary run of such bugs, but the question in my mind is how long has it taken for development. If it is not asking too much, I would like to hear your opinion regards same.

Yours very truly,

C. H. Charlton, D. C.,
606 E. 10th St., So.,
Portland, Ore.

The specimen submitted with the letter was a living example of *B. aurulenta*.

14. *B. adjecta* Lec. This beautiful species is quite widely distributed but rare. Supposed to breed in *Pinus ponderosa*, and *P. contorta*. Specimens in the National Museum bear the host labels *Pseudotsuga taxifolia*, *Abies magnifica* and Jeffrey pine.
15. *B. rusticorum* Kby. A common species throughout the state. Breeds in Douglas fir and various *Abies*.
16. *B. subornata* Lec. Similar to the last, common in the pine belt. The preferred host is yellow pine.

17. *B. læviventris* Lec. A common species, often very abundant around saw mills and old logs. Adults feed on needles of young pines.
18. *B. confluenta* Say. For years I have been expecting this species to be taken in eastern Oregon but not until this year did it appear and then not in the eastern portion of the State. A beautiful male was picked up on the sidewalk in Corvallis June 30, 1924, by J. Wilcox, the first recorded specimen for Oregon.
19. *B. viridisuturalis* N. and W. Several specimens have been taken on black cottonwood in the vicinity of Corvallis.
20. *B. fasciata* Fab. A rather common species.
21. *B. Gibbsii* Lec. A rare species. I have seen some eight specimens taken in Oregon. Mostly flying. One taken July 1, 1924, on ash cordwood. Breeds in oak.
22. *B. connexa* Horn. A rare species taken from yellow pine by the author some years ago. In 1922 with Dr. Van Dyke, a series of this species was taken at an old saw mill near Halfway, Oregon. There were some 20 logs in the mill yard, part were yellow pine and part were Douglas fir. Much to our surprise we found the females selecting the fir, in preference to the pine for egg deposition. The beetles fly only during the intense heat of mid-day. Taken July 4, 5 and 6.

VI. *Melanophila* Esch.

23. *M. miranda* Lec. Reported from Oregon by Dr. Le Conte.
24. *M. acuminata* De Geer. A common species, breeding in *Pinus* and *Abies*.
25. *M. drummondi* Kby. This is probably the most abundant species of Buprestidæ in Oregon. It breeds in practically all our conifers except the cedars and junipers. I have also taken it ovipositing in living cottonwood. (*P. trichocarpa*).
Atanycolus (Bracon) montivagus Cress. and *Helcon*

fulvipes are important parasites often destroying over 50 percent of the broods.

26. *M. consputa* Lec. Taken in small numbers in Klamath County around forest fires.
27. *M. gentilis* Lec. Quite common in the yellow pine regions.
28. *M. Pini-edulis* Burke.* A single specimen taken by M. J. Miller in Jackson county.
29. *M. californica* Van Dyke. This species not previously reported from this state is quite common on yellow pine reproduction.
30. *M. intrusa* Horn. Not previously reported from Oregon. Taken at Klamath Falls VII-9; Sparta VII-2; Halfway VII-4; La Grande VII-9 and Corvallis VII-4. All specimens taken on yellow pine reproduction.

VII. *Anthaxia* Esch.

31. *A. æneogaster* L. & G. Abundant. Breeds in twigs of yellow pine, Douglas fir, redwood, willow, mountain mahogany, oak and several bushes, rose, rhodendron, redbud, etc.
32. *A. deleta*. One specimen in the National Museum collected by Schwarz at Portland V-28. I have collected numbers of them near Klamath Falls VII-9; Corvallis VII-4; VII-17; Oakridge VI-29; Ashland VII-2; La Grande VII-9. Most conveniently taken beating young yellow pine, in the twigs of which it breeds. Taken on the flowers of wild lilac at Oakridge.

VIII. *Chrysobothris* Esch.

33. *C. femorata* Fab. Fairly common in the aspen stands of eastern Oregon, occasionally found in orchards and on cottonwood and alder.
34. *C. contigua* Lec. Abundant in the yellow pine forests.
35. *Chrysobothris lilaceous* new species.

*Since seeing Dr. Burke's specimens of the true *M. pini-edulis*, I am somewhat doubtful of the identity of this Oregon specimen.

Color dark lilac bronze, thorax reddish, antennæ dark coppery bronze, first segment as long or longer than the second and third, third about as long as next two combined; front coppery with two prominent callosities and irregular raised areas coarsely punctured, rather densely clothed with white pubescence on the depressed areas; clypeus rather deeply triangularly notched (fig. 5); thorax twice as wide as long with prominent, dark median smooth area extending two-thirds from the base flanked on each side by a large irregular round area on the anterior half, a smaller less prominent one near the lateral margin; surface otherwise coarsely strigosely punctured. Elytra wider than thorax, parallel about one-half the way back then gradually narrowed to the apex, margin serrulate, first costa distinctly elevated on the apical half merging into a rather broad elevated smooth space on the basal half, four basal foveæ deep and distinct, surface with numerous raised dark areas which have few punctures and these near their margins, balance of surface moderately densely, coarsely punctured. Body beneath, coppery bronze coarsely punctate; last ventral segment sinuate the emargination scarcely evident (fig. 6). Length 10.5—11 mm.

In Horn's table this species runs to *cuprascens* but can be distinguished at once by its larger size, clypeus without the teeth, the strigulose thorax and the last ventral being longer and more acuminate.

Described from three females taken on juniper (*Juniperus occidentalis*) about six miles west of Klamath Falls, Oregon, June 14, 1922, in company with numerous *C. nixa* and *viridicyanea*. The host is doubtless western juniper. Type in author's collection.

36. *C. viridicyanea* Horn. Not previously recorded from Oregon but not uncommon in *Juniperus occidentalis* in the eastern and central parts of the state.
37. *C. dolota* Horn. Quite widely distributed in the pine regions but always rare.
38. *C. dentipes* Germ. Very abundant in eastern and southern Oregon, breeds in various pines.
39. *C. carinipennis* Lec. Fairly common in the pine belt.
40. *C. californica* Lec. The type of *C. vulcancia* Lec., which is considered a synonym of *C. californica* was taken in Oregon.

41. *C. pseudotsugæ* Van Dyke. Not previously reported from Oregon. One specimen taken at Ashland in August.
42. *C. laricis* Van Dyke. The type material taken in the Blue Mountains of Oregon.
43. *C. sylvania* Fall. Rare, occurs in Douglas fir, emerges early in April.
44. *C. caurina* Horn. Breeds commonly in yellow pine twigs.
45. *Chrysobothris juniperinus* new species.

Length, male, 8.5 mm., female, 9 mm. Width 3 mm. Superficial appearance somewhat as in *cuprascens*; form rather more slender; color of elytra as in *cuprascens*, thorax and head less reddish; antennæ first joint longer than the second and third combined, third joint not as long as the next two, joints 4 to 8, prominently serrate, tip much narrowed, dull bronze, darker in female; front convex with two small, distinct callosities; dull bronze more reddish in female, coarsely closely punctured and clothed with long white pubescence, male, less so in female, Clypeus acutely notched (fig. 3); thorax more than twice as wide as long, widest in front of the middle, base and apex rather abruptly narrowed, disc irregular, no median depression, a shallow fovea near each lateral margin, surface densely evenly punctate, except where broken by slightly elevated, dark smooth areas. Elytra wider than thorax, sides almost parallel (slightly sinuous), one-half the way back, narrowing thence to the apices, margin serrulate, prominent basal foveæ, flanked by a smaller less distinct one near the outer margin; first costa distinctly elevated entire broadening out at basal third, second and third faintly evident on the raised areas; irregular raised areas occupy almost one-half the elytral surface (mainly on the basal half), these are dark, smooth, shining with a few scattered small punctures, balance of surface bronzed, moderately punctate. Under surface bronze with long white pubescence covering the prosternum, male, shorter and less dense on other parts of ventral surface; last ventral segment of male (fig. 1) with a broad semi-circular emargination; last ventral of female (fig. 2) with only a faint notch.

Prosternum distinctly lobed, the anterior tibiæ of male arcuate and dilated at the tip (fig. 4) placing the species in Dr. Horn's Group IV near *caurina* from which it is easily separated by the tibiæ, color of front and the emargination of the last ventral segment, which lacks the lateral raised areas so prominent in *caurina*.

Described from a single pair taken on freshly cut juniper (*Juniperus scopulorum*) posts in the Stein Mountains (7500 ft.

altitude), Harney County, Oregon, June 22 and June 24, in company with *C. viridicyanea*.

Another pair taken at the same place show no distinct characters by which they may be separated but are somewhat larger measuring 10.5 mm. in length and 4 mm. in width.

The host is undoubtedly the Rocky Mountain Juniper which is the only conifer in the Stein Mountains.

46. *C. breviloba* Fall. A single specimen taken in Eastern Oregon.
47. *C. monticolæ* Fall. Four specimens taken in the Warner Mts. Lake county June 19, on yellow pine.
48. *C. mali* Horn. This species has forty-four recorded host plants. In Oregon it is becoming a serious pest in prune, peach and walnut orchards. Hundreds of young trees have been killed shortly after being set out. It is also quite injurious to young shade trees.
49. *C. nixa* Horn. Occurs in southern Oregon in *Juniperus occidentalis*. Not previously reported from this state.
50. *C. pubescens* Fall. One specimen taken on Mt. Jefferson VII-20 seems to belong to this species. There is no other record of its occurrence here.
51. *C. deleta* Lec. A rare species which probably breeds in twigs of yellow pine. Two specimens, one flying at Condon VII-8, the other on yellow pine trimmings at Sparta VII-3.
52. *C. cyanella* Horn. I know of only three specimens of this species having been taken in Oregon. All were taken near Ashland. Breeds in yellow pine twigs, flies during June and July. Not previously reported from this State.

IX. *Polycesta* Serv.

53. *P. californica* Lec. Two specimens have been taken, one at Ashland, Oregon, by J. M. Miller and one at Gold Hill by the author.

X. *Acmaeodera* Esch.

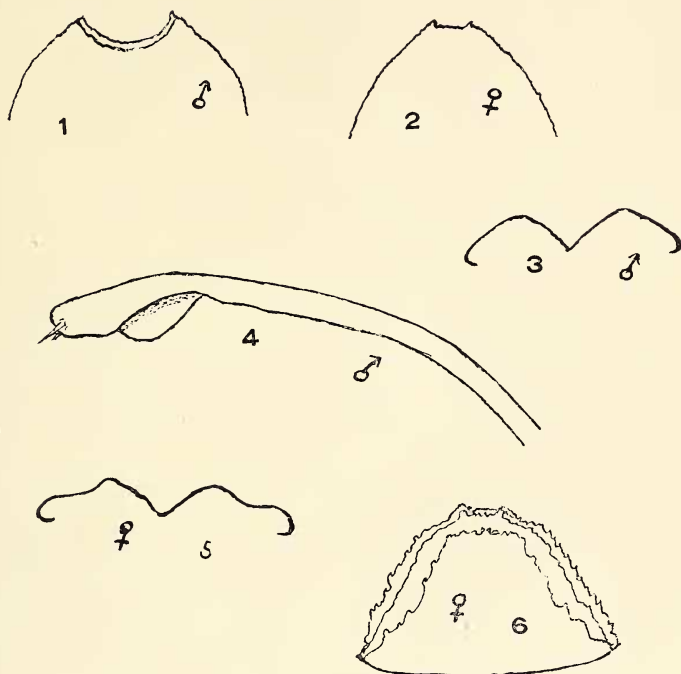
54. *A. variegata* Lec. One specimen in the National museum bears a label "Hood River, Oregon" V-21-1892. (Hubbard & Schwarz.) Fall says "*variegata* extends its range into eastern Oregon." No other species of this genus has been recorded from Oregon but the following three species occur here.
55. *A. connexa* Lec. Quite common in the open spaces of the yellow pine forests of southern Oregon. Most abundant on one of the woolly sunflowers, (*Eriophyllum lanctum*), I have taken only one specimen in any locality where mountain mahogany was not common and believe it breeds in that plant.
56. *A. vandykei* Fall. Several specimens taken on mountain mahogany (*Cercocarpus parvifolius*) west of Klammath Falls in June. One specimen at Sparta July 3.
57. *A. gemina* Horn. One specimen taken at Prospect on the Crater Lake Highway Aug. 10, 21 by Prof. A. L. Lovett.

XI. *Chrysophana* Lec.

58. *C. placida* Lec. Widely distributed in the southern portion of the state, but never common. Occasionally taken in the Willamette Valley as far north as Portland.

XII. *Agrilus* Steph.

59. *A. vittaticollis* Rand. Two specimens, Corvallis. One taken years ago flying. The second beaten from service berry VI-23-1924 by B. G. Thompson.
60. *A. niveiventris* Horn. Reported from southern Oregon by Dr. Fall. One specimen taken on Oregon alder near La Grande July 9. A series taken on black cottonwood and Oregon alder at Oakridge May 29 and June 28.
- A. anxius* Gory. Taken just over the Oregon line in Idaho and no doubt occurs in this state though so far as known no specimens have been taken.



EXPLANATION OF PLATE XV.

Fig. 1. Last ventral segment of *C. juniperinus* n. sp. ♂.

Fig. 2. Last ventral segment of *C. juniperinus* n. sp. ♀.

Fig. 3. Clypeus of *C. juniperinus* n. sp.

Fig. 4. Front tibiæ of ♂ *C. juniperinus*, n. sp.

Fig. 5. Clypeus of *C. lilaceus* n. sp.

Fig. 6. Last ventral segment of ♀ *C. lilaceus* n. sp.